



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,714	09/02/2005	David Dreher	05-377	2413
34704 7590 10/18/2007 BACHMAN & LAPOINTE, P.C. 900 CHAPEL STREET SUITE 1201 NEW HAVEN, CT 06510			EXAMINER VERBITSKY, GAIL KAPLAN	
			ART UNIT 2855	PAPER NUMBER
			MAIL DATE 10/18/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/540,714

Applicant(s)

DREHER ET AL.

Examiner

Gail Verbitsky

Art Unit

2859 2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 10 and 16-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10, 16-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 101***

1. Claims 16-17 are finally rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 16-17 are directed to a judicial exception; such pursuant to the Interim Guidelines on Patent Eligible Subject Matter (MPEP 2106), the claims must have either physical transformation and/ or useful, concrete and tangible result. The claims fail to include transformation from one physical state to another. Although, the claims appear useful and concrete, there does not appear to be tangible result claimed. The practical application of the claimed invention cannot be realized until the information is conveyed to the user. For the results to be tangible, it would need to output to a user, displayed to a user, stored for later use, or used in any tangible manner. Merely "reducing" would not appear to be sufficient to constitute a tangible result, since the outcome of the "reducing" step has not been used in the disclosed practical application nor made available in such a manner that its usefulness in a disclosed practical application can be realized. Therefore, the subject matter claimed in claims 16-17, is not patent eligible.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 16 and 17 are finally rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject

matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In this case, it appears that the steps of "reducing" as stated in claims 16, 17, has not been clearly described in the specification.

Claim 17: it appears that the term "coating" has not been described in the specification. Perhaps applicant should replace the "coating ..... with" with —covering ... with—or —fixing ... by means of--.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 10 is finally rejected under 35 U.S.C. 103(a) as being unpatentable over Manecke (U.S. 4491680) in view of Jen et al. (U.S. 5951163) [hereinafter Jen].

Manecke discloses in Fig. 7 a temperature sensing device that could be used to measure temperature of a surface, the device comprising a temperature sensing element (thermocouple) comprising two leads 51 and 52 which pulls through a sensor body 50 in corresponding holes as far as an outer wall of the sensor body. The device also has a crimping sleeve/ portion 49 firmly crimped over an equalizing line (insulation)

48 that is arranged in the crimping sleeve/ portion 49. The cross section of the equalizing line is reduced in the place of the crimping, as shown in Fig. 8.

The sensing element projects from the equalizing line into the sensor body 50.

Manecke does not explicitly teach to use the device to measure temperature of an (wall) injection-molding device.

Jen teaches that it is very well known in the art to use standard thermocouples to measure temperature of a (wall) injection-molding device.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Manecke, so as to use it to measure temperature of a (wall) injection molding device, because Jen teaches that a standard/ conventional thermocouple could be use for this purpose, therefore, such a use will minimize the manufacturing costs by using a known device.

The method steps will be met during the normal process of production of the device stated above.

6. Claims 16, 19 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Manecke in view of Jen and Steinel et al. (U.S. 6299349) [hereinafter Steinel].

Manecke and Jen combined disclose the device, as stated above.

Manecke does not teach all the limitations of the method steps, as stated in claims 16, 19.

Steinel discloses in Fig. 2 a device in the field of applicant's endeavor (for direct/ contact measuring temperature in injection molding apparatuses) wherein a

temperature sensing element is being made in flush (orifice terminates with external wall) with an outside wall 72 by means of welding or grinding.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Manecke, so as to weld or grind the temperature sensing element, as taught by Steinel, in order to make it flush with an outer wall to ensure accurate temperature measurements by providing a good contact of the temperature sensing element with a surface of interest by means of the outer wall.

The method steps will be met during the normal process of production of the device stated above.

7. Claim 10 is finally rejected under 35 U.S.C. 103(a) as being unpatentable over Babcock et al. (U.S. 3797310) [hereinafter Babcock] in view of Manecke.

Babcock discloses in Fig. 2 a device in the field of applicant's endeavor comprising a temperature sensor/ probe inserted in a mold wall to sense the temperature of the mold wall 10. The temperature probe comprising a temperature sensing point 22 protruding out of the housing through an orifice. The probe has threads, the threads are, inherently, located near any components of the probe.

Babcock does not have a crimping sleeve/ crimping portion, and the remaining limitations of claim 10.

Manecke discloses in Fig. 7 a temperature sensing device that could be used to measure temperature of a surface, the device comprising a temperature sensing element (thermocouple) comprising two leads 51 and 52 which pulls through a sensor

body 50 in corresponding holes as far as an outer wall of the sensor body. The device also has a crimping sleeve 49 crimped over an equalizing line (insulation) 48 that is arranged in the crimping sleeve/ portion 49. The cross section of the equalizing line is (partially) reduced in cross-section in the place of the crimping, as shown in Fig. 8.

The sensing element projects from the equalizing line into the sensor body 50.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Babcock so as to add a crimping sleeve/ portion, as taught by Manecke, in order to keep the probe tightly inside the housing in a harsh environment.

The method steps will be met during the normal process of production of the device stated above.

8. Claims 16, 18 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Babcock in view of Manecke and Steinel et al. (U.S. 6299349) [hereinafter Steinel].

Babcock and Manecke combined disclose the device, as stated above.

They do not teach all the limitations of the method steps, as stated in claims 16, 18.

Steinel discloses in Fig. 2 a device in the field of applicant's endeavor (for direct/ contact measuring temperature in injection molding apparatuses) wherein a temperature-sensing element is being made in flush (terminates with an external wall) with an outside wall 72 by means of welding or grinding.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Babcock and Manecke,

so as to weld or grind the temperature sensing element, as taught by Steinel, in order to make it flush with an outer wall to ensure accurate temperature measurements by providing a good contact of the temperature sensing element with a surface of interest by means of the outer wall.

The method steps will be met during the normal process of production of the device stated above.

### ***Response to Arguments***

9. Applicant's arguments with respect to claims 10, 16-19 are moot in view of new ground of rejection necessitated by the amendment.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.



Art Unit: 2859

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices and methods.

**JP 06074837A** discloses a device comprising a temperature sensor 11 for measuring temperature/ heat flux from a mold wall.

**Howell (U.S. 3745828)** discloses a device for measuring temperature of a mold wall 12 comprising a temperature probe. Howell does not teach the particular probe as claimed by applicant.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gail Verbitsky whose telephone number is 571/ 272-2253. The examiner can normally be reached on 7:30 to 4:00 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 571/ 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GKV

Gail Verbitsky  
Primary Patent Examiner, TC 2800



10/04/2007